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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,891	06/13/2001	Nobuyuki Katsuda	0425-0842P	2878

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EXAMINER

FLEMING, FAYE M

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 08/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/857,891

Applicant(s)

KATSUDA ET AL.

Examiner

Faye Fleming

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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**DETAILED ACTION**

***Acknowledgments***

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The information disclosure statement filed June 13, 2001 has been entered and acknowledged.

***Preliminary Amendment***

3. The preliminary amendment filed June 13, 2001 has been entered and acknowledged.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 4 and 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamilton, et al (JP 08-282427).

Hamilton, et al teaches a hybrid inflator 26 for an safety system of vehicles provided with an airbag 18 comprising an inflator housing; a gas generator 82 installed in the inflator housing; an ignition means connected to the gas generator wherein the interior of the inflator housing is filled with a pressurized medium; the gas generator

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has one or two or more gas generating chambers storing a gas generating means; and a molar ratio between the amount of the pressurized medium and an amount of a gas generated due to combustion of the gas generating means is between 8/2 and 1/9. The gas generating means is a gas generating agent including a fuel, an oxidizing agent and a slug-forming agent. Regarding claim 22, the gas generating means is kept in a normal pressure atmosphere. Regarding claim 23, the gas generating means is formed in a perforated cylindrical shape, as shown in the figures. Regarding claim 24, Hamilton, et al teaches an activating signal outputting means 14 comprising an impact sensor and a control unit and a module case in which the hybrid inflator and airbag are stored.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 5, 7, 8 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton, et al (JP 08-282427).

Hamilton, et al discloses the claimed invention except for a set ratio of molar and weight, a fuel of a guanidine derivative and a pressure index of the gas generating agent. With respect to a set ratio of molar and weight, it would have been obvious to one having ordinary skill in the art at the time the invention was made to set a ratio, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. With

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respect to using a fuel of a guanidine derivative and using a gas generating agent having a pressure index less than 0.8, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the fuel and the gas generating agent, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Regarding claims 20 and 21, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflator to be made of high strength steel having a tensile strength of not less than 60 kg/mm<sup>2</sup>, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

8. Claims 6, 9-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton, et al (JP 08-282427) in view of Lundstrom, et al (4,370,181).

Hamilton, et al teaches the claimed invention except for a non-azid organic compound and a pressurized medium containing an inert gas and no oxygen. Lundstrom, et al teaches a solid non-azide composition for generating non-toxic nitrogen gas intended for use in the deployment of inflatable safety crash bags in vehicles wherein the composition has no oxygen present. Based on the teachings of Lundstrom, it would have been obvious to one having ordinary skill in the art at the time the invention was made modify the system of Hamilton, et al to include a non-azide composition which has no oxygen present, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. With respect to a set ratio of molar

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and weight, it would have been obvious to one having ordinary skill in the art at the time the invention was made to set a ratio, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. With respect to using a fuel of a guanidine derivative and using a gas generating agent having a pressure index less than 0.8, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the fuel and the gas generating agent, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Fleming whose telephone number is (703) 305-0209. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-2571 for regular communications and (703) 308-2571 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

**PAUL N. DICKSON**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3600**

Faye Fleming  
Examiner  
Art Unit 3616

